MSC Certification of Fisheries Product in Mozambique

Preliminary Investigation

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1. Introduction

The report presents the findings of a series of consultations with the government and private sector in Mozambique on the Marine Stewardship Council / ComMark initiative to implement a project in the SADC region to support certification (Eco-Labelling) of products from some of the region's fisheries. The overall aims of this project are to raise incomes of fishing communities in Southern Africa and to improve the marine ecosystems of the region through an increase in the number of Southern African fisheries becoming certified to the MSC Standard and so benefiting from the increased market opportunities that certification can offer. The project will:

- Increase awareness of the role of fishery certification as a marketing tool
- Identify potential candidate fisheries for certification
- Encourage assessment of identified fisheries for certification to the MSC Standard
- Identify market opportunities for certified products from SADC region fisheries.

2. Industry Profile

The Mozambican fishing industry is divided into three tiers, namely artisanal, semi-industrial and industrial.

Artisanal fishery

The artisanal fishery operates throughout the country's 2,500km coastline, but is concentrated in the northern half of the country. The fishery produces almost exclusively for the national market, using a variety of basic gears including beach seines, hand lines, gillnets, long lines and traps. Motorisation of the artisanal fishery is very low and the use of ice for onboard conservation is limited to fisheries close to major urban centres. Linkages to external markets are made through shore based processing facilities based in Beira, Maputo and Angoche.

Semi-Industrial

The semi-industrial sector is focussed on the shallow water shrimp fishery on the Bank of Sofala (zone 2 in Figure 1) and the demersal hand line fishery in the southern part of the country. Semi industrial vessels are limited to 20m LOA and in the shrimp fishery are subject to quota restrictions if fitted with onboard freezing capacity. The semi industrial fleet is based in Beira and Maputo, with a few vessels in Angoche. Product from the semi-industrial fishery is processed ashore and sold on regional, domestic and European markets. There are 7 shore based processing facilities in Mozambique currently certified for EU markets, base in Angoche (1), Beira (4), and Maputo (2).

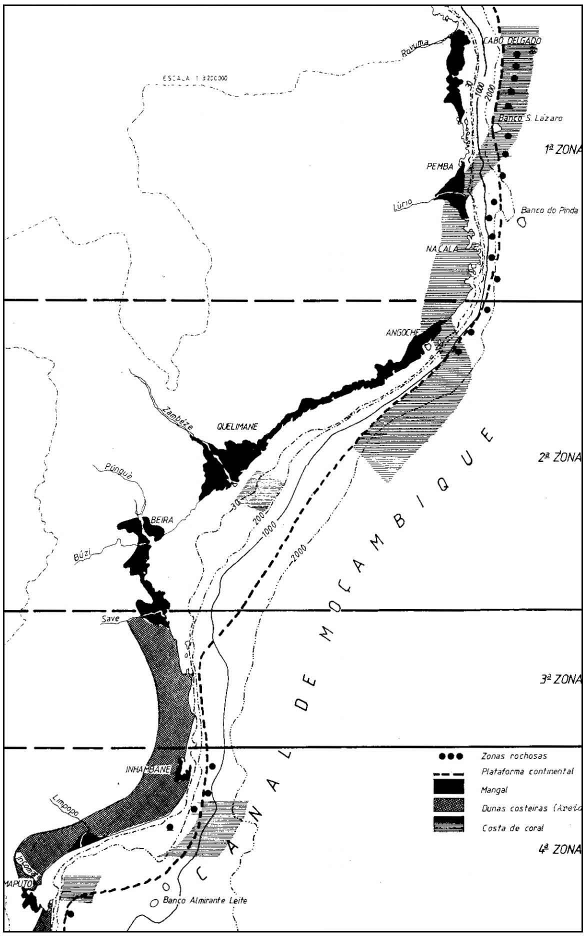

Figure 1 - Coastline Map

In addition to the marine fishery, there is also a semi-industrial fishery on Cahorra Bassa Reservoir targeting Kapenta, a freshwater clupeid.

Industrial

The industrial fleet is based in the ports of Quelimane, Beira and Maputo and fishes the shallow water shrimp resource on the bank of Sofala and deep water shrimps. The industrial shrimp fishery is managed through individual annual quotas, and is fully exploited in the shallow waters. Vessels fishing deep water shrimp may get access to additional quota mid season should they require. Product is processed on board and subsequently landed in country and then shipped to European markets.

There is also a foreign fleet, licensed through both fisheries agreements and direct contract, fishing tuna and other large pelagics in the EEZ. This fleet neither lands product nor takes on supplies in Mozambican ports.

Aquaculture

Shrimp aquaculture is considered a priority sector and although currently small, has great growth potential. There are currently 3 operating farms (in Pemba, Quelimane and Beira), with a total production of around 1,000 tonnes per year. All three are fully integrated with their own hatcheries and processing facilities, and export primarily to European markets.

3. Production

Official production statistics for 2005 and 2006 are shown in the following tables. Total catch (all subsectors) is reported as 83,000 - 91,000 tonnes but it should be noted that the artisanal sector is not completely covered by the statistical system and officers estimate total catch (all subsectors) to be in the region of 100,000 - 120,000 tonnes per year.

Table 1 - Industrial and Semi-Industrial Fisheries Catch

	Tonnes		US$'000	
	2005	2006	2005	2006
Lobster	1	8	11	88
Crab	158	107	474	321
Deep water shrimp	1,774	1,803	8,870	9,015
Fish	660	665	1,650	1,663
Shallow water Shrimp	8,520	7,393	68,160	59,144
Nephrops	149	94	1,490	940
Cephalopods	165	114	413	285
Kapenta	12,991	16,017	15,589	19,220
Bycatch	1,830	1,725	915	863
Total	**26,248**	**27,926**	**97,572**	**91,539**
Tuna	5,396	6,691	10,792	13,382

Source: Ministério das Pescas, Relatório do Balanço do PES 2006

Table 2 - Artisanal Fisheries Catch

	Tonnes		US$'000	
	2005	2006	2005	2006
Crab	161	175	482	508
Fish	50,024	57,457	125,060	143,643
Shallow water shrimp	1,759	1,367	8,795	6,835
Cephalopods	240	247	600	618
Sharks	892	776	2,230	1,940
Lobster	12	5	132	35
Others	4,660	3,946	2,330	1,973
Total	**57,748**	**63,973**	**139,629**	**155,552**

Source: Ministério das Pescas, Relatório do Balanço do PES 2006

4. Exports and Markets

Export statistics are presented in the following table for all subsectors. Note that more captured shallow water shrimp is exported than is landed by the industrial & semi industrial fleets, confirming that product is being successfully sourced from the artisanal fishery.

Table 3 - Fisheries Exports

	Tonnes		US$'000	
	2005	2006	2005	2006
Lobster	10	8	110	78
Crab	324	376	972	1,128
Deep water shrimp	1,565	1,881	7,825	9,405
Fish	329	280	823	700
Shallow water shrimp	9,414	8,670	75,312	69,360
Farmed shrimp	1,017	531	6,102	3,186
Shrimp total	*10,431*	*9,201*	*81,414*	*72,546*
Nephrops	102	136	1,020	1,360
Cephalopods	165	39	413	98
Kapenta	3,615	5,071	4,338	7,607
Seaweed	20	-	43	-
Total	**16,561**	**16,992**	**96,958**	**92,922**

Source: Ministério das Pescas, Relatório do Balanço do PES 2006

Markets

The markets for the major export products can be described as follows:

Deep water shrimp (*Gamba*): The major export markets for deepwater shrimp are Spain and Portugal, but the product is reprocessed for consumer markets in Spain and Italy

Shallow water shrimp: Both the export and consumer markets for shallow water shrimp from the capture fishery are in Spain and Portugal, the former being significantly more important. Part of the shrimp production from the semi-industrial and artisanal fishery, which is processed ashore, is sold on regional markets, of which the most important is South Africa. It should be noted that there is no penetration of US markets, primarily on account of the industry's reluctance to use turtle exclusion devices, a measure required by the US Food and Drug Administration.

At retail level, the largest single buyer of Mozambican shrimp in Europe is reported to be the Carrefour group (via Pescanova), but product also is sold via smaller specialist fish shops in Portugal and South Africa, many of which have family links with the smaller producers in Mozambique.

Farmed shrimp: Currently almost all farmed shrimp for Mozambique is sold to and consumed in France.

Kapenta: Kapenta is sun dried and sold almost exclusively on regional markets, particularly Zimbabwe and Malawi. National demand for kapenta is weak.

5. Commercial Relationships

The structure of the industry and the commercial relationships with buyers are particular relevance.

The deep water shrimp fishery: This fishery is traditionally known as one with relatively marginal returns. Operating costs are high (relative to the shallow water shrimp fishery) and the end product is of lower value. The low profitability of the fishery is confirmed by the total lack of uptake of deep water shrimp fishing opportunities in Mozambique set out in the previous EC fisheries agreement. The fishery is however exploited sequentially by some companies involved in the shallow water fishery. When returns start to fall in this fishery (June-September) vessels being diverted to deeper water. As a result most of the companies involved in the Gamba fishery are also quota holders in the shallow water fishery, and the marketing channels are closely linked.

The shallow water shrimp fishery: The three major quota holders in the industrial shallow water shrimp fishery are joint ventures between the State and private companies in Spain (Pescanova and Grupo Amasua)) and Japan (Maruha Corp.). Between them and their subsidiaries they control more than 60% of the total quota. All of the foreign partners are companies are vertically integrated and have commercial interest in the processing and distribution of shrimp in foreign markets, and product is always sent from Mozambique to the partner company. As a result the local company has a role limited to production and supply, and there are no marketing decisions made locally.

Pescanova is in the process of acquiring the Japanese interests in the fishery, and it is probable that this will result in that company controlling more than 50% of quota in the fishery.

The remaining, smaller, companies in the industrial shallow water shrimp fishery are all characterised by relatively low levels of capitalisation (most companies operate with leased vessels, on the basis of revenue sharing) and marketing channels that are integral to the leasing agreement. Again, as with the larger companies, there are few on-going marketing decisions that are made locally.

There are approximately 5 of the smaller quota holders who have their own vessels and manage their own marketing. These vessels are often not in good repair and it is common for some of these companies to fail to fish part or all of their quota with their own fleet, and make a short term agreement with one of the larger companies towards the end of the fishing year.

Artisanal Fishery: As indicated above, the artisanal fishery principally supplies the domestic market but there are examples of links between the sub-sector and international markets. In the case of shallow water shrimp (the most important of exported artisanal fishery products) the link is made through shore based processing facilities in Beira, Angoche and Maputo, who buy, process and market product from this sector as well as ice carrying semi-industrial producers. Processors in Beira reported that the integration with artisanal fisheries is becoming weaker on account of diminishing productivity (attributed to fishing effort from both artisanal and industrial vessels in the immediate inshore zone), high cost of collection / organisation and associated problems with consistency of quality and quantity.

Shore based Processors: In principle shore based processors have similar market linkages and make similar marketing decisions as the smaller owner-operators in the industrial fishery. However in practise most of the successful shore based processors have commercial or family linkages with Portugal and their resale network is static.

6. Organisation

Producer organisations

Producer organisations in the fisheries sector are somewhat fragmented, and there is no single body that represents the industrial and semi industrial sector interests. The primary function of the associations is to act as a channel for communications and lobby between the government and the industry

AMAPIC: This association has two members, Pescamar and Efripel. Should the planned purchase be completed, the association will be reduced to only a single member.

ANAP: ANAP, based in Maputo, was formed around 2000 and its members are all smaller quota holders in the industrial shallow and deep water shrimp fisheries.

ASSAPEMO: This association is based in Beira and represents the interests of semi-industrial operators in the shallow water fishery. Some of the members are also involved in the industrial sector.

ARMAPESCA: An association of 21 semi-industrial operators based in Maputo who are involved in fishing shallow water shrimp in Maputo Bay and line fishing in the south of the country.

APCM: APCM represents the aquaculture producers in Mozambique and all three producers are members.

The third largest quota holder in the shrimp fishery, Crustamoz (Grupo Amasua), is not a member of any association, but has made moves to join AMAPIC.

There is no association that represents the interests of the shore based processors.

In the artisanal fishery a range of local associations of artisanal fishermen exist, particularly in the central provinces.

Commercial Institutions

IPEX: The Institute for Export Promotion is a government body established to promote Mozambican services and products, through market information systems, market identification. Their mandate, in principle, would allow IPEX to perform other functions in the interest of export promotion that are not directly in these fields. Historically IPEX has not had a lot of involvement in the promotion of Mozambican seafood products, especially shrimp, due to the producer-market links described above and unsatisfied markets.

Chamber of Commerce: The Chamber of Commerce has a broader approach to trade promotion, covering key sectors including financial services, tourism, insurance as well as agriculture, fisheries and Industry. Several of the smaller quota holders and processors are members, as well as Pescamar.

7. Review of Relevance and Interest

Producers

Producer response to the idea of MSC certification was generally very positive and certification is seen as both the way ahead and an inevitable requirement for access to foreign markets:

- ✓ The industry at all levels recognises that eco-labelling is part of the future, especially in the shrimp industry, whose primary markets are in Europe.
- ✓ The largest quota holder in the shallow water shrimp fishery, Pescamar, has already received enquiries from the parent company (Pescanova) as to the status of eco-labelling in the fishery and they are ready to support the initiative. As indicated above, the company has a very dominant

position in the industry, and without their support it is unlikely that it will be possible to forge ahead with certification.

- ✓ The larger quota holders, Pescamar and Crustamoz, made specific reference to certification as a means to safeguard investments made in the fishery.
- ✓ Smaller producers and shore-based processors have more immediate concerns and feel greater competition from other products on the market. For this group, the value of certification is in market access and product differentiation.

- The business structure of even the smaller producers implies that they are cushioned from retail market forces by a foreign buyer/distributor. In some cases, producers may only be motivated to give active support to certification once it has been requested by the buyer. Only Pescamar reported that it has already received such interest.
- It is possible that smaller producers may not give immediate support for certification (especially if there are significant cost implications) and may wait for the market to dictate, rather than make a pre-emptive move.
- It is unlikely that certification will be used to diversify the markets used by *producers*. These are generally static and fixed either by vertical integration, long-term agreements and/or confidence. The marketing benefits of certification will be most relevant to the buyers, and producers hope to receive corresponding secondary benefits in the form of demand and/or price.
- Shrimp from Mozambique is reported to hold a unique position on both South African and European markets on account of its origin. A "Made in Mozambique" label is considered by producers to be currently more important to consumers than an Eco-Label.
- Producers showed concern about MSC certification and the implementation of measures to protect the environment, specifically turtle exclusion devices (TEDs). Although Mozambican law implies that TEDs should be used, the Ministry does not enforce this and the industry considers the measure both costly and irrelevant, citing low incidental turtle catches. If TEDs are an integral part of certification of a shrimp fishery, it may be easier to certify product from artisanal sources - turtle catch may occur in the beach seine fishery but hauls are so short that the animals may be put back live.

  Other by-catch reduction devices (not obligatory by law) are also not liked by the industry on account of increased operating costs and the loss of higher value species from the by-catch.

Government

- ✓ The Ministry of Fishery's initial reaction to the idea of MSC certification was positive and it was viewed as a tool that could contribute to improved management.
- ✓ The idea of a third party making an independent assessment of management practice is in principle acceptable.
- ✓ The Ministry has already implemented many of the measures stipulated in the FAO guideline including:
  - On going data collection;
  - Periodic stock assessment on the basis of best scientific knowledge;
  - Fishery management on the basis of stock assessments and best scientific knowledge;
  - Legal and administrative framework, backed up by MCS.

  The extent and quality of implementation would only be assessed at a later stage.

- ✓ Both sustainable exploitation of resources and support for export-orientated production are stated government objectives.
- ✓ The Ministry favours the strengthening of links between export markets and the artisanal fisheries sector, and if certification were to improve the position of shore-based processors this would make the process particularly welcome.
- Although no definite position was obtained from the Ministry, concerns were voiced over their willingness to contribute to the costs of certification.

The relevance of eco-labelling to the local market for seafood is considered to be very limited (see bleow).

8. Opportunities for developing interest and involvement in using eco-labelling

The principle opportunities for the development of eco-labelled products lie in the shallow water and deep water shrimp fisheries, especially via producers who are targeting export markets outside of the SADC region:

- Shrimp is by far the most significant of export products, making up 85% of seafood exports by value (92% if aquaculture production is included).
- Most of shrimp exports go to Europe (awaiting data from Ministry)
- The largest producer has already had enquiries from Europe regarding eco-labelling, others are aware of potential benefits.
- Although the shallow water industrial fishery is the major producer of shrimp, it may be the most difficult to certify on account of the impact of the fishery on the environment (principally by-catch control and utilisation) and questions regarding the control of effort and the effectiveness of MCS. There may be more immediate opportunities to certify the deep water shrimp fishery and the artisanal shrimp fishery.
- There are clear advantages in advancing with certification before the market makes it a requirement, but producers do not rank this with equal priority. Some industrial producers are more concerned with the promotion of Mozambican Shrimp as a mark, than Mozambican shrimp as a environmentally sound product.
- Regional markets for shrimp from Mozambique are small and specialised. They are considered to be driven more by the product's origin than environmental considerations.
- The aquaculture industry is particularly interested in eco-labelling, both as a way of improving market position and helping with operational management. This is without doubt a future opportunity and, bearing in mind the organisation of the aquaculture sector in Mozambique, it may be easier to implement the administrative part of eco labelling in this sector than in the marine fishery.
- The principle challenge / opportunity related to the certification of the shrimp fishery will be the identification of a client. This is discussed below.

Local Market

The local seafood market is mostly informal, and only a very small fraction of consumption is sold through supermarkets and fish shops. Urban consumers will either buy at daily street markets or from informal traders selling house to house. Consumers of imported processed fish products such as breaded fillets and fish-fingers are mostly foreigners, who make up a very small part of the national market. Consumer choices are driven by price and availability and it is not considered that there are significant opportunities for the promotion of eco-labelled products.

Restaurants in Maputo are frequented by wealthier and better educated elements of society as well as foreigners. It is considered that there may be greater scope for the promotion of eco-labelled seafood through these outlets than through retail networks. Even so, the market is not that big - there are about 7 restaurants which specialise in seafood, in addition to 8 hotels with a 4 star rating or higher. Publicity campaigns (in-menu handouts or even TV advertising) would probably be effective.

9. Review of possible local involvement in certification services

There are a few consulting groups based in Maputo that are specialised in environmental impact assessments, all of which have some experience with the fisheries sector. None have previous experience of eco-labelling certification. The most suitable candidates for local involvement in certification services are:

BioGlobal Consultoria & Serviços Lda	bioglobal@tdm.co.mz
Consultec Lda	consultec@mail.tropical.co.mz
Impacto Lda	impacto@impacto.co.mz
Kusi Lda	kusimoz@mac.com

BioGlobal's directors have extensive experience in the fisheries sector, covering management, resource assessment and aquaculture amongst others.

Consultec are relatively new to environmental impact assessments but are currently involved in extensive studies and mediation associated with nearshore hydrocarbon exploration in Inhambane province.

Impacto Lda has a wide-ranging of experience with environmental impact assessments in many sectors. Recently they have been involved with studies of the impact of nearshore hydrocarbon exploration in Cabo Delgado province.

Kusi Lda has broad experience in the fisheries sector both in Mozambique and in the SADC region. Previous assignments cover areas including fisheries management, MCS, policy development and fiscal analysis.

10. Identification of key stakeholders & potential partners

The key stakeholders in the shrimp fishery that are relevant to MSC cetification are:

Government:

Direcção Nacional de Administração Pesqueira (National Directorate of Fisheries Administration), responsible for licensing, quota, MCS. Contact: Ivonne Lichucha, National Director

Industry:

The producer associations identified above, namely **AMAPIC, ANAP, ASSAPEMO**, **ARMAPESCA** and **APCM**. The extremely dominant position of Pescamar in the industry makes the company an important stakeholder.

The Client?

The structure of the industry and the associations, together with the dominant position of Pescamar makes it very difficult to identify a single client for the certification process. The obvious candidate would be a producer association, but AMAPIC only represents the interests of one company and there is some tension between them and ANAP. The optimal client would be closely aligned with AMAPIC/Pescamar (necessary in order to get the Ministry to move on issues) and also have a good dialogue with ANAP as well as other industrial / semi-industrial / processing companies who are not members of either of the two associations. In addition the optimal client should be in a position to put pressure on the Ministry should, for example, certification depend on certain improvements or changes in resource management practices. At the moment such a client does not exist, and there are fears that the certification process will end up serving only the objectives of Pescamar.

IPEX, a government body established to promote exports, would in principle be willing to act as client in an initial phase, pending the establishment of an exporters association to whom the mantle would eventually be transferred. It is considered that the requirements of the "client" may be significantly beyond the remit and interest of IPEX, especially as they do not appear to have a regular dialogue with companies in the fisheries sector. In addition, it is questionable as to how much pressure they would be able to put on the Ministry of Fisheries (if that were necessary) without running into political and protocol barriers. The Chamber of Commerce has slightly wider representation, but again lobbying Ministries for action on certification would not come high on their list of priorities.

11. Issues Raised

The following issues were raised during the consultations:

- Who will pay and how much?

Both government and the industry sought clarification as to estimated costs of certification, including both the 5 year review and annual monitoring. Information was also sought on models for the allocation of costs, especially with respect to contributions from the State.

- By catch reduction devices / TEDs

As indicated above there were concerns regarding the use of BRDs and TEDs as a requirement of certification. The industry is currently opposed to this.

- The State's vested interests

The three largest stakeholders in the fishery are all joint ventures between the State and foreign private companies. This can lead to a conflict of interest regarding resource management, and clarification was sought as to how this might influence MSC certification.